

Abstract of the Disclosure

5 The invention is directed to a circuit arrangement for
operating an exhaust-gas probe including a NOx double chamber
sensor. The exhaust-gas probe includes: a heatable solid-state
electrolyte body having first and second pump chambers and
diffusion barriers for separating the chambers from each other
and from the exhaust gas. A third chamber communicates with the
atmosphere. An external pump electrode is exposed to the exhaust
gas and a first oxygen pump electrode is disposed in the first
10 pump chamber. A second oxygen pump electrode is disposed in at
least one of the first and second pump chambers and a nitrogen
oxide pump electrode is disposed in the second pump chamber. An
air reference electrode is disposed in the third chamber. Only
one pump voltage generating circuit unit is provided and a
15 switching device switches the pump voltage generating circuit
unit between respective ones of the pump electrodes. The pump
voltage generating unit functions to generate, in a controlled
manner, all of the voltages applied to the pump electrodes in
dependence upon respective reference voltages.